

CLAIMS AMENDMENTS:

Please cancel claims 1-16 and 18-20, which are withdrawn from consideration, without prejudice. Please cancel claim 17, without prejudice.

This listing of claims will replace all prior versions, and listings, of claims in the application.

Claim 1 (canceled)

Claim 2 (canceled)

Claim 3 (canceled)

Claim 4 (canceled)

Claim 5 (canceled)

Claim 6 (canceled)

Claim 7 (canceled)

Claim 8 (canceled)

Claim 9 (canceled)

Claim 10 (canceled)

Claim 11 (canceled)

Claim 12 (canceled)

Claim 13 (canceled)

Claim 14 (canceled)

Claim 15 (canceled)

Claim 16 (canceled)

Claim 17 (canceled)

Claim 18 (canceled)

Claim 19 (canceled)

Claim 20 (canceled)

21. (New) A screening method for identifying agent compounds capable of increasing 27-hydroxy-7-dehydrocholesterol (cholesta-5,7-diene-3 β -27 diol) and/or 27-hydroxy-8-dehydrocholesterol (cholesta-5,8-diene-3 β -27 diol) levels in a cell or an animal, wherein said compound interferes with the expression of 27-hydroxy-7-dehydrocholesterol reductase activity or stimulates expression of 27-hydroxylase activity, comprising determining the levels of 27-hydroxy-7-dehydrocholesterol and/or 27-hydroxy-8-dehydrocholesterol in the presence and absence of a compound, wherein a compound which stimulates 27-hydroxylase or reduces 27-hydroxy-7-dehydrocholesterol reductase relative to a control is identified as a compound capable of increasing 27-hydroxy-7-dehydrocholesterol and/or 27-hydroxy-8-dehydrocholesterol.

22. (New) The method of claim 21, wherein a compound that interferes with the expression of 27-hydroxy-7-dehydrocholesterol reductase activity is identified as a compound capable of increasing 27-hydroxy-7-dehydrocholesterol and/or 27-hydroxy-8-dehydrocholesterol levels wherein the expression of 27-hydroxylase, as determined by measuring its encoding mRNA CYP27, is not altered.

23. (New) A screening method for identifying agent compounds capable of increasing 27-hydroxy-7-dehydrocholesterol and/or 27-hydroxy-8-dehydrocholesterol levels in a cell or an animal, wherein said compound stimulates expression of 27-hydroxylase activity, comprising determining the levels of 27-hydroxylase encoding mRNA CYP27 in the presence and absence of a compound, wherein a compound which stimulates 27-hydroxylase encoding mRNA CYP27 relative to a control is identified as a compound capable of increasing 27-hydroxy-7-dehydrocholesterol and/or 27-hydroxy-8-dehydrocholesterol.

24. (New) A screening method for identifying agents capable of increasing the level of 7-hydroxylase in a cell or an animal by increasing the expression of 7-hydroxylase comprising determining the level of 7-hydroxylase encoding mRNA CYP7, wherein a compound which increases the 7-hydroxylase encoding mRNA CYP7 relative to a control is identified as a compound capable of increasing the expression of 7-hydroxylase.

25. (New) The method of claim 24 wherein the level of CYP7A1 mRNA is determined.

26. (New) The method of claim 24 wherein the level of CYP7B1 mRNA is determined.